STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

Office of Preparedness & Response
Sherry Adams, R.N., C.P.M, Director
Isaac P. Ajit, M.D., M.P.H., Deputy Director

September 10, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:35
Reporting for the week ending 09/04/10 (MMWR Week #35)

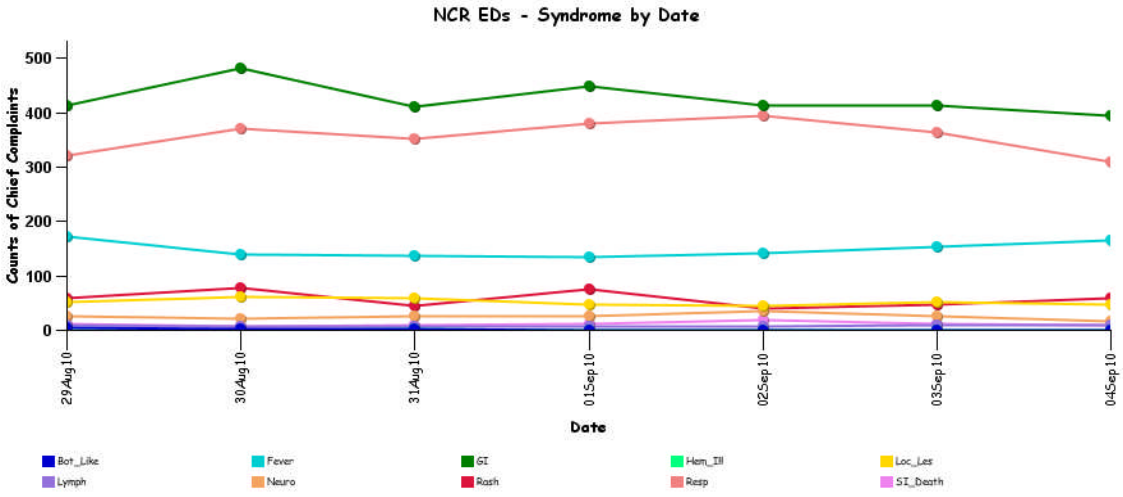
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

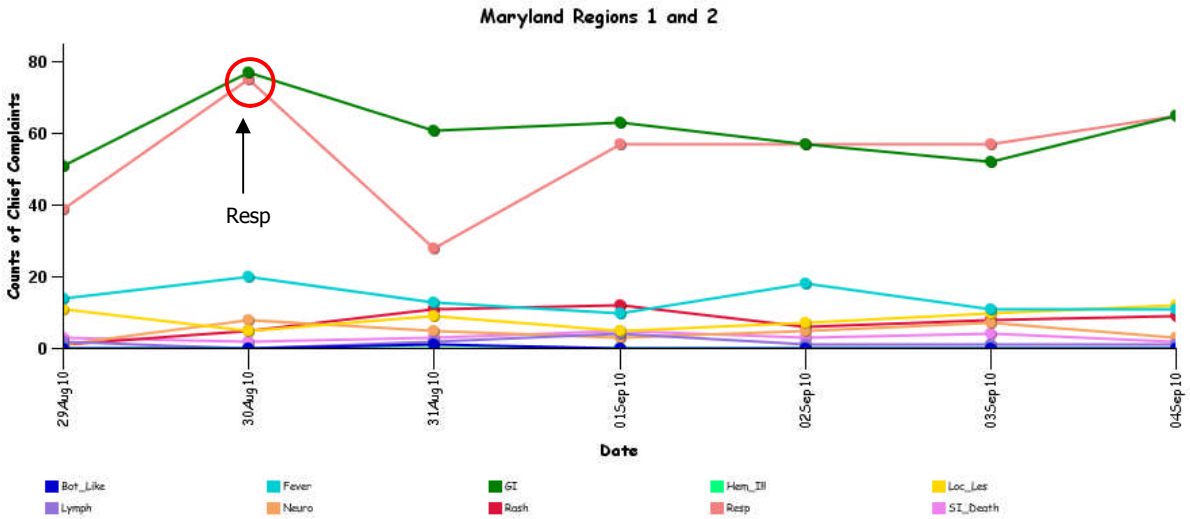
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

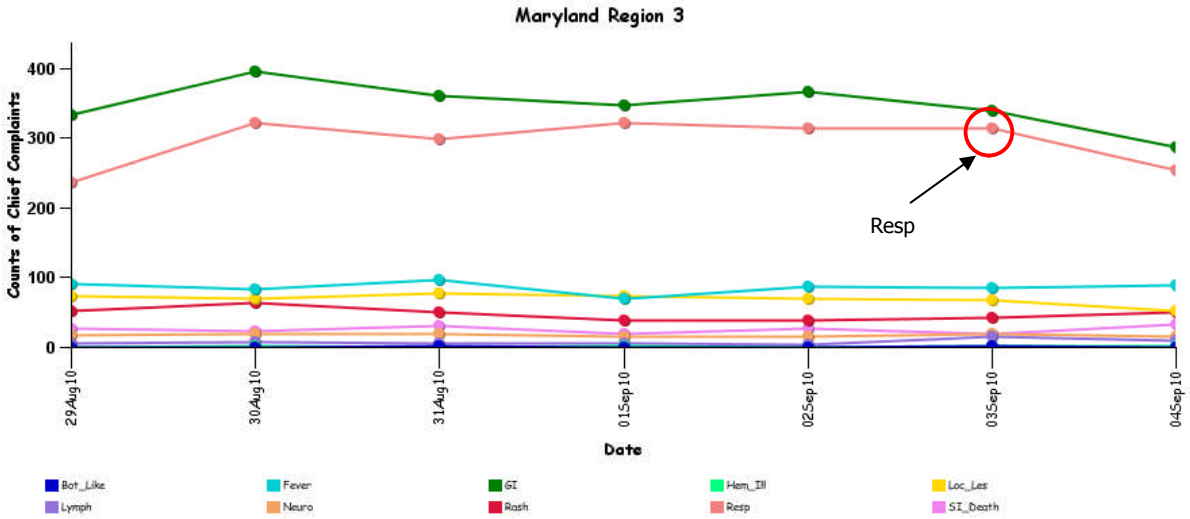
MARYLAND ESSENCE:



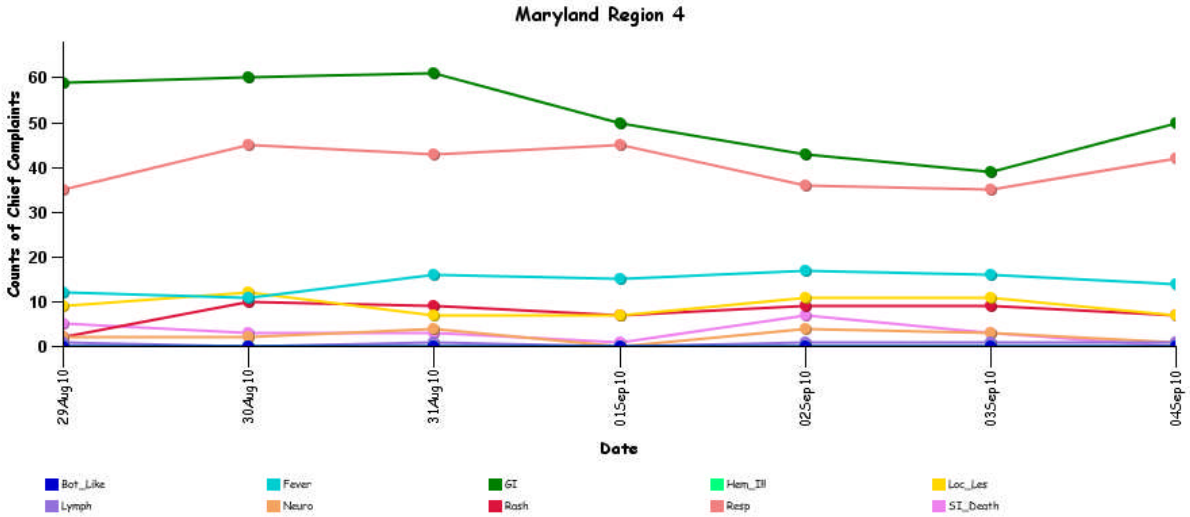
*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE



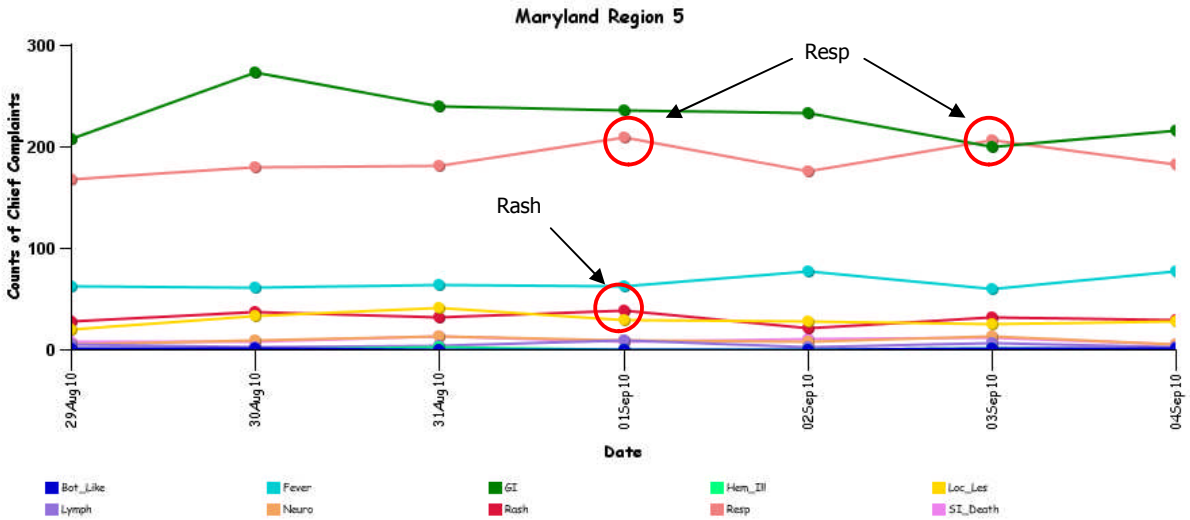
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



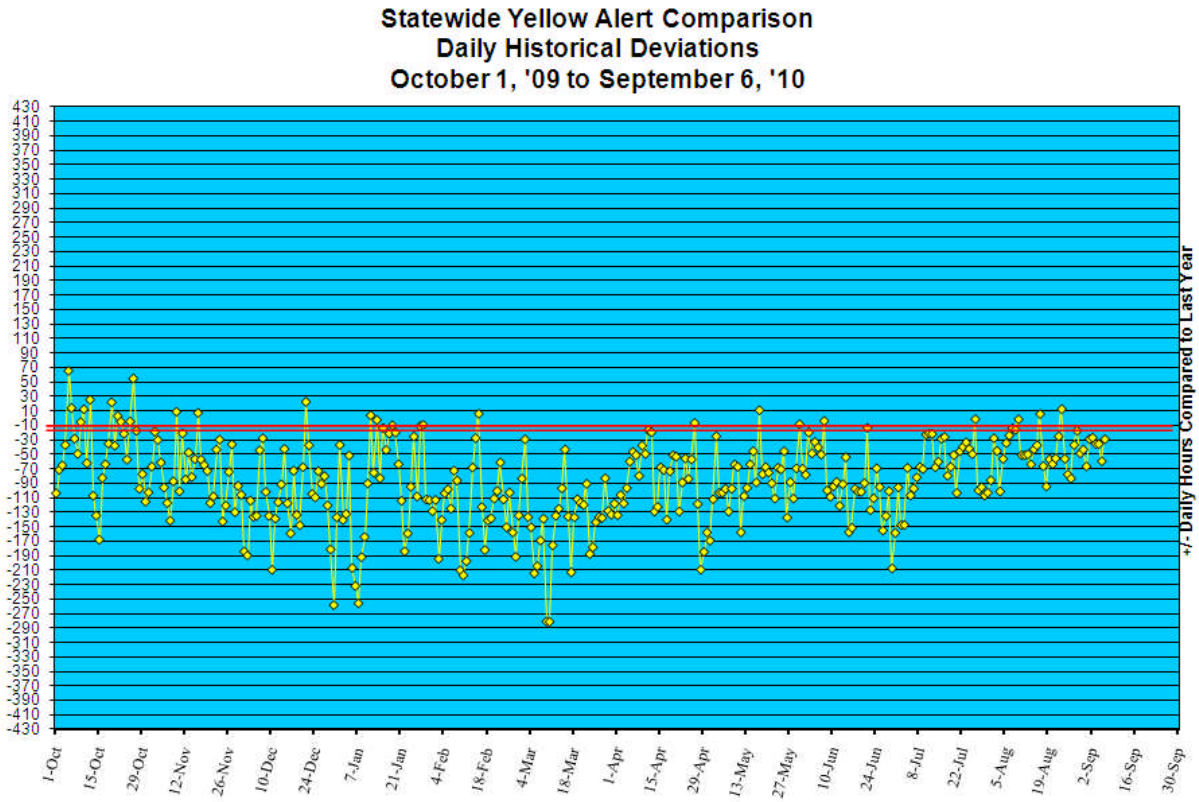
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in July 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (August 29 – September 4, 2010):	16	0
Prior cases (August 22 – August 28, 2010):	10	0
Week#35, 2009 (August 30 – August 5, 2009):	28	0

6 outbreaks were reported to DHMH during MMWR Week 34 (Aug. 22-28, 2010)

1 Gastroenteritis outbreaks
1 outbreak of GASTROENTERITIS in a School

1 Foodborne gastroenteritis outbreaks
1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Private Home

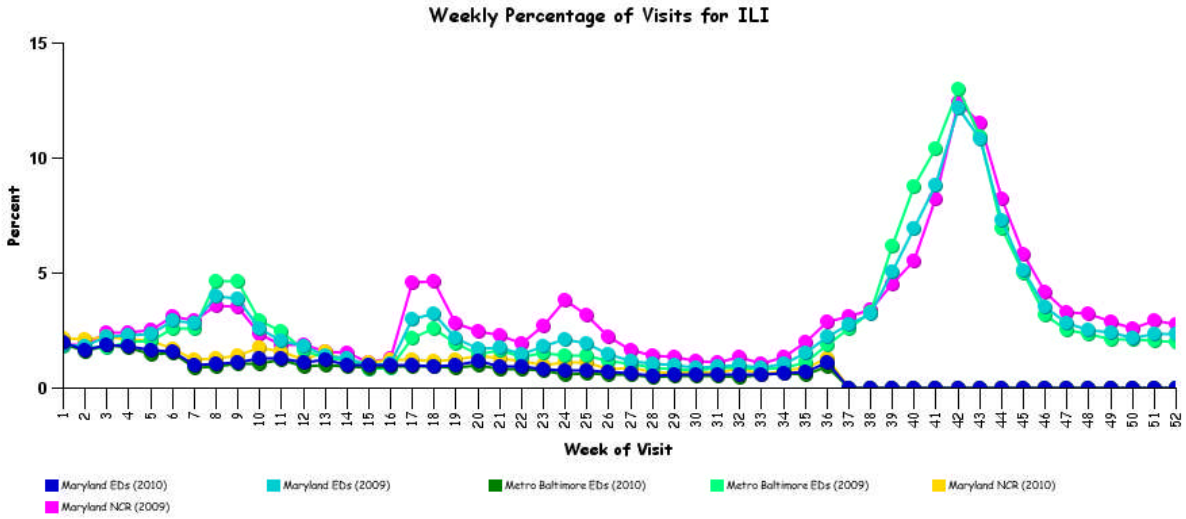
2 Respiratory illness outbreaks
1 outbreak of AFRD/PNEUMONIA in a Nursing Home
1 outbreak of LEGIONNAIRE'S DISEASE in an Assisted Living Facility

2 Rash illness outbreaks
1 outbreak of HAND, FOOT, AND MOUTH DISEASE in a Daycare
1 outbreak of SCABIES in a Hospital

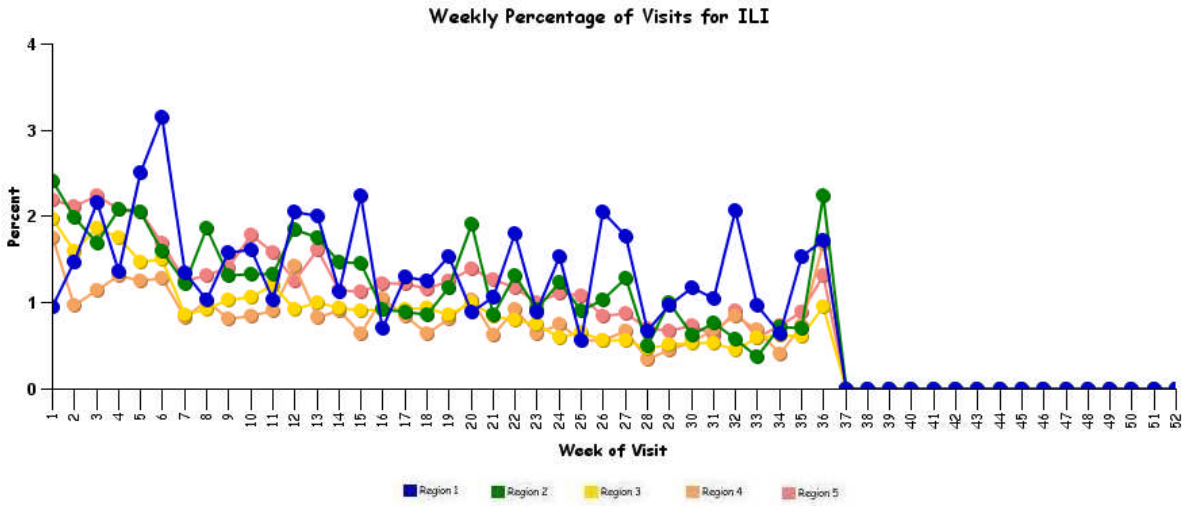
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



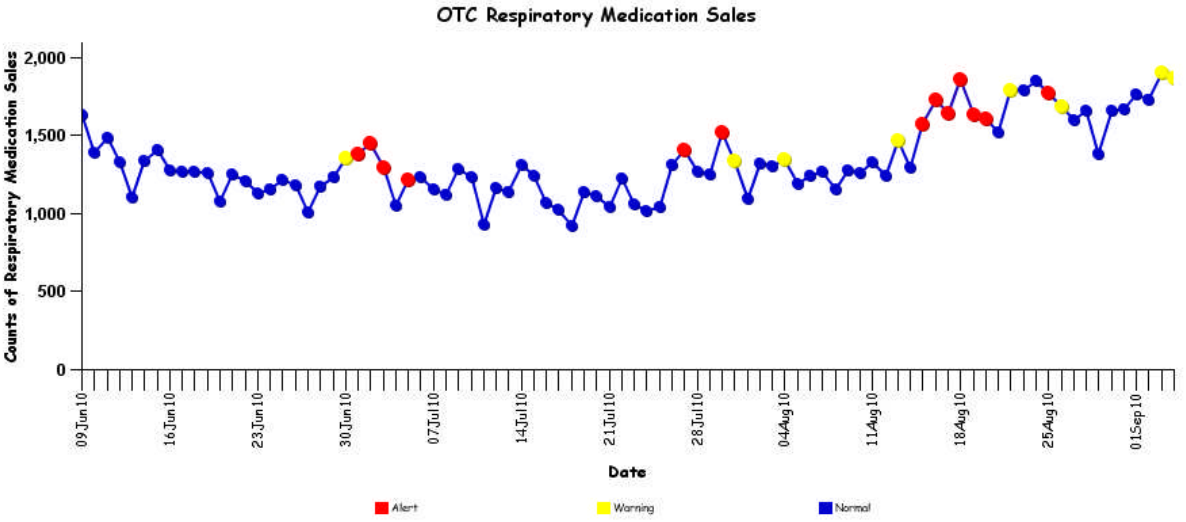
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



AVIAN INFLUENZA-RELATED REPORTS:

WHO update: The current WHO phase of pandemic alert for avian influenza is 3.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of August 30, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 505, of which 300 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC (H1N1) WHO UPDATE: 27 Aug 2010, worldwide [pandemic] H1N1 2009 [pandemic] virus transmission remains most intense in parts of India and in parts of the temperate southern hemisphere, particularly New Zealand and more recently in Australia.

In India, the current national influenza H1N1 2009 epidemic, which 1st began during late May and June 2010 in the southern state of Kerala (co-incident with start of the monsoon rains), continues to remain regionally intense in several western and southern states as well as the in the capital. The western state of Maharashtra, which to date, has detected the highest numbers of cases (including fatal cases), continues to record the most intense influenza H1N1 2009 [pandemic] activity; however, the rate of increase in the numbers of new cases reported per week appears to have slowed during mid-August 2010, suggesting that current epidemic activity may be peaking.

Increasing H1N1 2009 activity has also been reported in Delhi since early August 2010, and in the southern states of Karnataka and Andhra Pradesh since late July 2010. A number of other states, primarily in western and northern India, reported small numbers of new cases during the 3rd week of August 2010, suggesting that low level circulation of H1N1 2009 may be more geographically extensive. Since late July 2010, the vast majority of influenza virus detections have been H1N1 2009 [pandemic].

In New Zealand, [influenza] H1N1 2009 [pandemic] virus transmission remains active and locally intense, particularly in areas that were less affected during last winter's 1st pandemic wave. As of the 3rd week of August 2010, the overall national weekly rate of consultations for ILI [influenza-like illness] continued to increase above the seasonal baseline for the 4th consecutive week; however, the rate of increase in ILI consultations appears have slowed during the most recent reporting week, suggesting that peak epidemic activity may occur in the weeks ahead.

Although the overall national rates of ILI consultations has not exceeded levels seen during the 2009 winter pandemic wave, several areas of New Zealand, most notably Hawke's Bay, Hutt Valley and Lakes, are all reporting local rates of ILI consultations that match or surpass rates seen at the national level at the peak of last winter's pandemic wave. The vast majority of influenza virus detections during the current epidemic period have been H1N1 2009.

In Australia, during the 1st 2 weeks of August 2010, data from several surveillance systems indicate that influenza activity is increasing, including a one week increase in the national rate of ILI consultations, regional spread of ILI activity in 3 southern and eastern states, and a sharp 2-week rise in the proportion of sentinel respiratory samples testing positive for influenza virus (an increase from 5 to 15 percent). However, overall national rates of ILI consultations remain well below levels observed during the 2009 winter pandemic wave.

The majority of recent influenza virus isolations have been characterized as H1N1 2009 [pandemic]; however, seasonal H3N2 viruses have also been detected at low levels. Of note, an online influenza surveillance system that tracks the rate of ILI in the community found that recent increases in the rate of ILI have been among persons who were unvaccinated against H1N1 2009 virus. Although significantly fewer severe and total cases of H1N1 2009 virus infection have been detected this year compared to last winter, the median age of H1N1 2009 virus infected cases appears to similar although slightly older (21 versus 26 years old).

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS:

EASTERN EQUINE ENCEPHALITIS (MICHIGAN, FLORIDA): 01 September 2010, The Michigan Department of Community Health (MDCH) today [23 Aug 2010] has confirmed a 3rd case of eastern equine encephalitis (EEE) in Barry County. A 52-year-old woman, who first fell ill in late July [2010] and was hospitalized, is in a rehabilitation center recovering from the illness. The previous 2 human cases of EEE are in Kalamazoo County. A 61-year-old man is home recovering from the illness while a 41-year-old man is in intensive care in a Kalamazoo County hospital. All human cases have a history of local exposure to mosquitoes. These are the 1st human cases reported in Michigan since 2002. No further details about the 3 cases are being released. The MDCH and the Michigan Department of Agriculture (MDA) are continuing to receive reports of cases of EEE in horses in Southwest Michigan, including Barry, Calhoun, Cass, Kalamazoo, and St Joseph counties. EEE is one of the most dangerous mosquito-borne diseases in the US, killing 1/3 of those hospitalized with the infection, and often leaving survivors with lasting brain damage. In the face of this ongoing outbreak, Michigan residents are urged to take precautions against mosquito bites. EEE is spread by mosquitoes and

causes inflammation of the horses' brains and leads to death in up to 90 percent of the cases. People cannot get the disease from horses, only from mosquitoes. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

E. COLI VTEC NON-O157 (USA): 31 August, 2010, Cargill Meat Solutions Corp. has recalled about 8500 pounds of ground beef that may be contaminated with E. coli, the U.S. Department of Agriculture announced Sat 28 Aug 2010. The move came after 3 people, 2 in Maine and 1 in New York, were identified as becoming ill from a strain of *E. coli*, the government said. None of the 3 required hospitalization, said Cargill Inc. spokesman Mike Martin. The USDA says it believes certain BJ's Wholesale Club stores in Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York and Virginia received the products. The recalled ground beef was shipped on 11 Jun 2010 to distribution centers, where it was repackaged into consumer-size packages and sold under different retail brand names. The USDA did not identify the brands. The recalled beef bears the USDA establishment number "EST. 9400," a product code of "W69032" and a "use/freeze by" date of 1 Jul 2010. The USDA's Food Safety and Inspection Services, which said it became aware of the problem on 5 Aug 2010, "determined that there is an association between the ground beef products subject to recall and the cluster of illnesses in the states of Maine and New York." Saturday's statement identified the strain as _E. coli_ 026, which can cause bloody diarrhea, dehydration and, in severe cases, kidney failure. The government "strongly encourages consumers to check their freezers and immediately discard any product subject to this recall." The government lists the recall as Class 1, meaning "there is a reasonable probability that the use of the product will cause serious, adverse health consequences or death." (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS (MASSACHUSETTS): 30 August 2010, The Department of Public Health (DPH) today [27 Aug 2010] announced the 1st case of eastern equine encephalitis (EEE) in Massachusetts residents. The case is a 43-year-old man from Plymouth County who has been diagnosed with eastern equine encephalitis (EEE). The patient developed symptoms on 21 Aug [2010], was hospitalized on 23 Aug [2010], and remains hospitalized. His exposure to a mosquito infected with EEE [virus] likely occurred in the southeastern section of Massachusetts, which has been identified as an area of elevated risk for mosquito-borne illness. Aerial spraying has been conducted in Plymouth County. There were no human cases of EEE during 2009; however there were 13 cases with 6 deaths from 2004 through 2006. EEE [virus] is usually spread to humans through the bite of an infected mosquito with symptoms beginning 5-7 days later. EEE is a serious disease in all ages and can even cause death. "Every year, we always hope that there won't be any cases of either of these mosquito-borne illnesses", said DPH State Epidemiologist Dr. Alfred DeMaria. "But when they occur they serve to remind us of how important it is to take steps to protect ourselves and our families. We always recommend that people use mosquito repellant and cover up when outdoors, no matter where they are." People have an important role to play in protecting themselves and their loved ones from illnesses caused by mosquitoes. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS:

JAPANESE ENCEPHALITIS AND OTHER (INDIA): 04 September, 2010, 9 more persons today succumbed to Japanese encephalitis, taking the toll in Uttar Pradesh's eastern region to 231, officials said. The 9 were undergoing treatment at BRD Medical College Hospital here, Additional Director (Health) U K Srivastava said. Of the deceased, 4 hailed from Gorakhpur, 2 from Kushinagar and one each from Sant Kabir Nagar and Siddharth Nagar. One victim hailed from neighbouring Bihar, Srivastava said. As many as 26 encephalitis patients have been admitted in BRD Medical Hospital since yesterday [1 Sep 2010]. At present, 227 patients were being treated in various government hospitals. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, CAPRINE (BULGARIA): 03 September 2010, The 2 men listed at the isolation ward of the hospital in the Danube city of Ruse have been infected with anthrax, the Regional Health Inspectorate reports. The Head of the Inspectorate further said that this is the 1st anthrax case in the Ruse region in the last 30 years. The men, 70 and 32, were admitted in the beginning of the week with symptoms of anthrax. They became ill after butchering a goat in the village of Chilnovo. The Health Ministry has been notified, and the men have begun penicillin treatment. Samples have tested positive for anthrax. However, the lab results from the samples from Chilnovo are still expected in order to confirm there is anthrax in the area. If the tests results [presumably from the butchered goat. - Mod.MHJ] come out positive, the regional vet services will begin vaccinations of all animals in the village to stop the spread of the infection. . (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (BANGLADESH): 02 September 2010, As many as 30 new cases of anthrax infection have been detected in 2 districts of the country, Kushtia and Tangail, raising the number of infected patients to 193, an official said Wednesday [1 Sep 2010]. Despite the government's claim that anthrax is under control, the disease is steadily making its way through the country. On Wednesday [1 Sep 2010], 16 new anthrax infected people were detected in Kushtia's Dharmadaha village under Doulatpur Upazila, and another infection case of 14 victims were reported on Tuesday [31 Aug 2010] in a village of Tangail district. A health ministry official who requested anonymity confirmed the news, adding that the new cases were detected after at least 127 people had been infected by the disease in Sirajganj and Pabna late [last] month [August 2010] [But see the next report for a larger number. - Mod.MHJ]. Upazila health and family planning officer in Kushtia Saleh Ahmed confirmed the report. The incidents have been observed for 2-3 days, and on Wednesday [1 Sep 2010] morning, a team of physicians visited the village, he said. "Treatment is being administered to the afflicted, and our workers are in place. The relevant authorities have been informed to help detect further infection," said Ahmed. Sharif Uddin, former chairman of Doulatpur Adabaira Union and a resident of

Dharmadaha village said that 20 to 25 goats became ill a few days ago, some of which were slaughtered and the mutton sold. "Five to 6 people became sick after consuming the meat; skin lesions were found on their body," he added. However, infection of the villagers of Tangail has caused wound-like lesions in the body. The villagers were infected as they were involved in processing and distribution of meat of an ailing cow, which has been found to be infected with anthrax, the official said. Anthrax is a highly contagious disease, usually transmitted to people through contact with meat, blood or skin of infected animals. Infection in humans most often involves the skin, the gastrointestinal tract or the lungs. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN (ENGLAND): 01 September 2010, An investigation begins after a 29-year-old man dies after taking heroin that was contaminated with anthrax. Anthrax has been found in the body of a 29-year-old Leicestershire drug user who died after taking heroin. Police and the Health Protection Agency are investigating the death of [the Loughborough man], who died on [Thu 26 Aug 2010]. This is the 4th time anthrax has been detected in a drug user in England since February 2010. Health officials have urged all heroin users to stop taking the drug and to seek treatment immediately. Four Loughborough men aged 24, 31, 35, and 37 were arrested in connection with the death but have been released on police bail pending further inquiries. Leicestershire Police saida post-mortem examination on [the deceased] was taking place on [Tue 31 Aug 2010]. Dr Philip Monk, of the East Midlands South unit of the Health Protection Agency, said there was no risk to people who did not take heroin. "I'd like to reassure people that there is no risk to the general population, including close family members of the deceased." Tim Davies, deputy director of public health at NHS Leicestershire County and Rutland, said: "While public health investigations are ongoing, it must be assumed that all heroin in Leicestershire carries the risk of anthrax contamination." He said people should seek medical advice if they experienced signs of infection, such as redness or excessive swelling at or near an injection site, as early antibiotic treatment could be lifesaving. "This is a very serious infection for drug users and prompt treatment is crucial." Anthrax is a very rare [in the UK] but serious bacterial infection caused by the organism *Bacillus anthracis*. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

BOTULISM (RUSSIA): 31 August 2010, 5 people including a child were hospitalized in severe condition due to botulism in Rostov, the regional health service reports. The hospital announced that 3 adults and a child are in the ICU now and an adult was transferred to the general ward. The ages of the affected are between 40 and 60 years old and the child in 7 years old. They all attended a birthday party and the source of toxin is considered to be dried fish from a local store. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (KENYA): 31 August 2010, One person died and 8 others were taken to hospital after eating contaminated meat. The [fatal] victim was [a 40-year-old man] from Nyanduma, Kiambu. His widow said he started complaining of stomachache shortly after arriving home from the shopping centre where he had eaten the meat. "He started to complain of stomach pain and we took him to a clinic where we were advised to take him to Kiambu hospital but he died on the way," she said. Those hospitalised are said to be in stable condition. Unconfirmed reports said more than 20 people were treated at the district hospital and discharged. "The meat was eaten by about 150 people who had attended a burial ceremony and most of them have travelled back and we do not know if the meat affected them," said Mr Gabriel Waruinge, the local chief. Mr. Waruinge said a health officer who inspected and certified the meat fit for consumption and the butcher who sold it had been arrested. Mr. John Mwai, a veterinarian, who was treating the animal for anthrax, said he had warned the locals against eating the meat but they ignored him. The butcher is alleged to have slaughtered the animal and sold the beef to unsuspecting customers. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

TYPHOID FEVER (INDIA): 29 August 2010, More than 43 cases of typhoid have been reported in the last one week at General Hospital, Sector 6, forcing them to gear up to handle the situation. These cases have been reported from urban as well as rural areas, and the figures are on similar lines as the previous week's, when about 45 cases of typhoid had surfaced. Diarrhea too is on the rise, as nearly 40 cases have been reported in the past 3 days alone. Doctors blame it on rains and contamination of water. As a combat measure, the hospital has decided to crackdown on colonies, which they claim are the breeding grounds for these diseases. Teams of health officials have been visiting various colonies every fortnight to assess the situation. The main colonies, including Rajiv, Indira and Azad Colony [slums in the city of Panchkula], are the ones that the hospital is keeping a close watch on. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

****

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Sadia Aslam, MPH
Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-2074
Fax: 410-333-5000
Email: SAslam@dhmh.state.md.us

Zachary Faigen, MSPH
Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: Zfaigen@dhmh.state.md.us